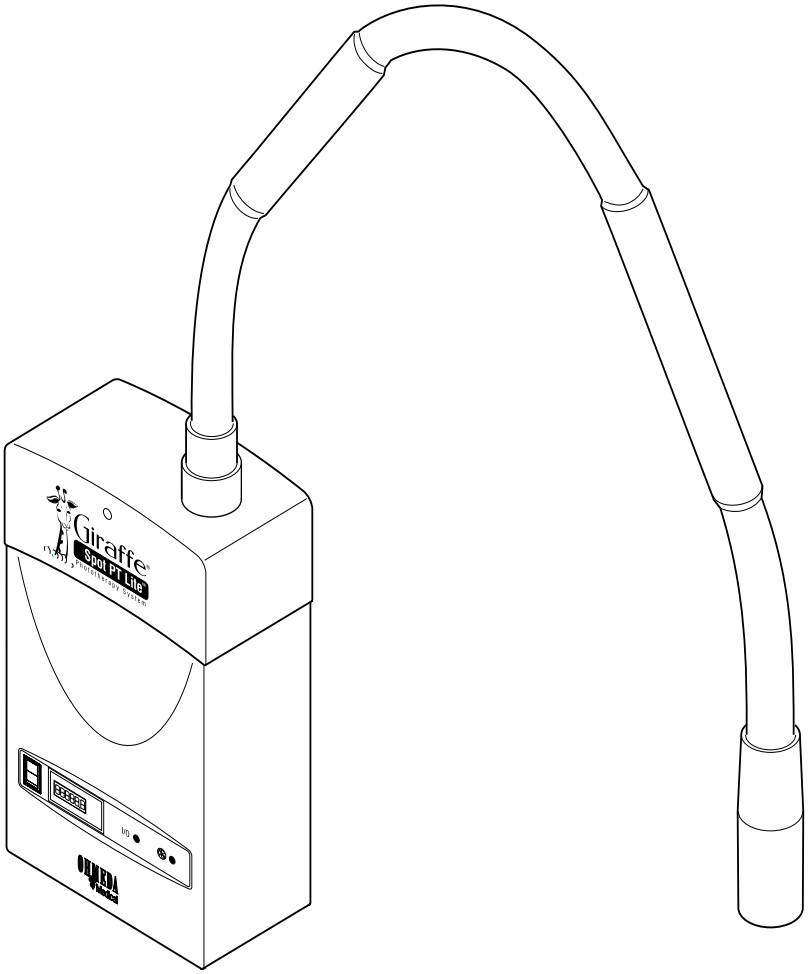
OHMEDA Medical

Giraffe® Spot PT Lite™

Phototherapy System

Operation, Maintenance and Service Manual



User Responsibility

This Product will perform in conformity with the description thereof contained in this operating manual and accompanying labels and/or inserts, when assembled, operated, maintained and repaired in accordance with the instructions provided. This Product must be checked periodically. A defective Product should not be used. Parts that are broken, missing, plainly worn, distorted or contaminated should be replaced immediately. Should such repair or replacement become necessary, Ohmeda Medical recommends that a telephone or written request for service advice be made to the nearest Ohmeda Medical Regional Service Center. This Product or any of its parts should not be repaired other than in accordance with written instructions provided by Ohmeda Medical and by Ohmeda Medical trained personnel. The Product must not be altered without the prior written approval of Ohmeda Medical's Quality Assurance Department. The user of this Product shall have the sole responsibility for any malfunction which results from improper use, faulty maintenance, improper repair, damage, or alteration by anyone other than Ohmeda Medical.

CAUTION ⚠ U.S Federal law restricts this device to sale by or on the order of a licensed medical practitioner.

OHMEDA Medical

CE 0086

Ohmeda Inc has declared that this product conforms with the European Council Directive 93/42/EEC Medical Device Directive when it is used in accordance with the instructions provided in the Operation and Maintenance Manual.

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Definitions

Next to each warning or caution, we have placed an attention, read accompanying documents symbol to alert you to the presence of these important statements. When the attention symbol appears in front of the text that is printed on the system itself, it means that the text is elaborated upon in the operation manual.

WARNING: A Warning statement is used when the possibility of injury to the patient or the operator exists.

CAUTION: A Caution statement is used when the possibility of damage to the equipment exists.

High voltage, electrical shock hazard.

Hot surface, do not touch.

~ Indicates alternating current.

Indicates IEC Type B equipment.

CE European Union Representative

Note: A Note provides additional information to clarify a point in the text.

WARNINGS ⚠

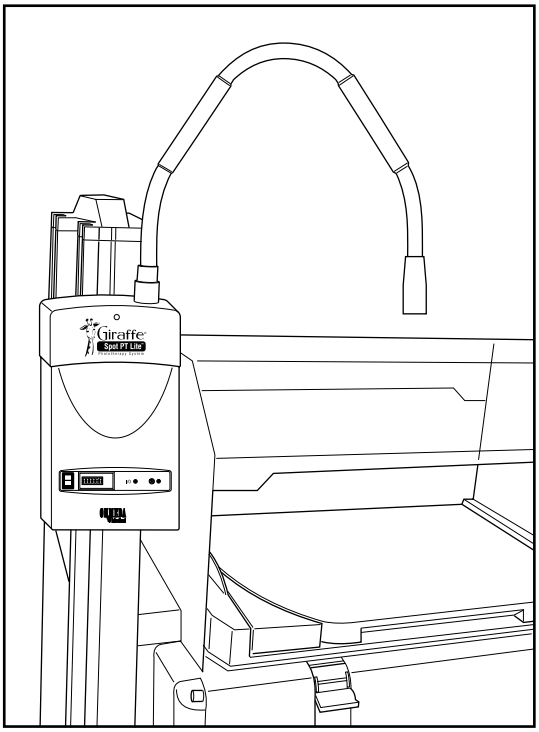
Do not use the Giraffe® Spot PT Lite™ Phototherapy System in the presence of flammable anesthetics or gases which can support combustion; a possible explosion hazard exists under these conditions.

CAUTIONS ⚠

Servicing of this product in accordance with the service manual should never be undertaken without the proper tools, test equipment and the most recent revision of the service manual which is clearly and thoroughly understood.

General Information

The Giraffe® Spot PT Lite™ Phototherapy System provides a cool light for the treatment of hyperbilirubinemia. The system consists of two main components: a light source unit which houses the lamp, controls, universal power supply, cooling system and thermostat; and the adjustable gooseneck which contains the light pipe and lens that deliver therapeutic light energy to the patient.



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The Light Source Unit

A metal halide bulb provides the light source. A fan cools the bulb and extends bulb life.

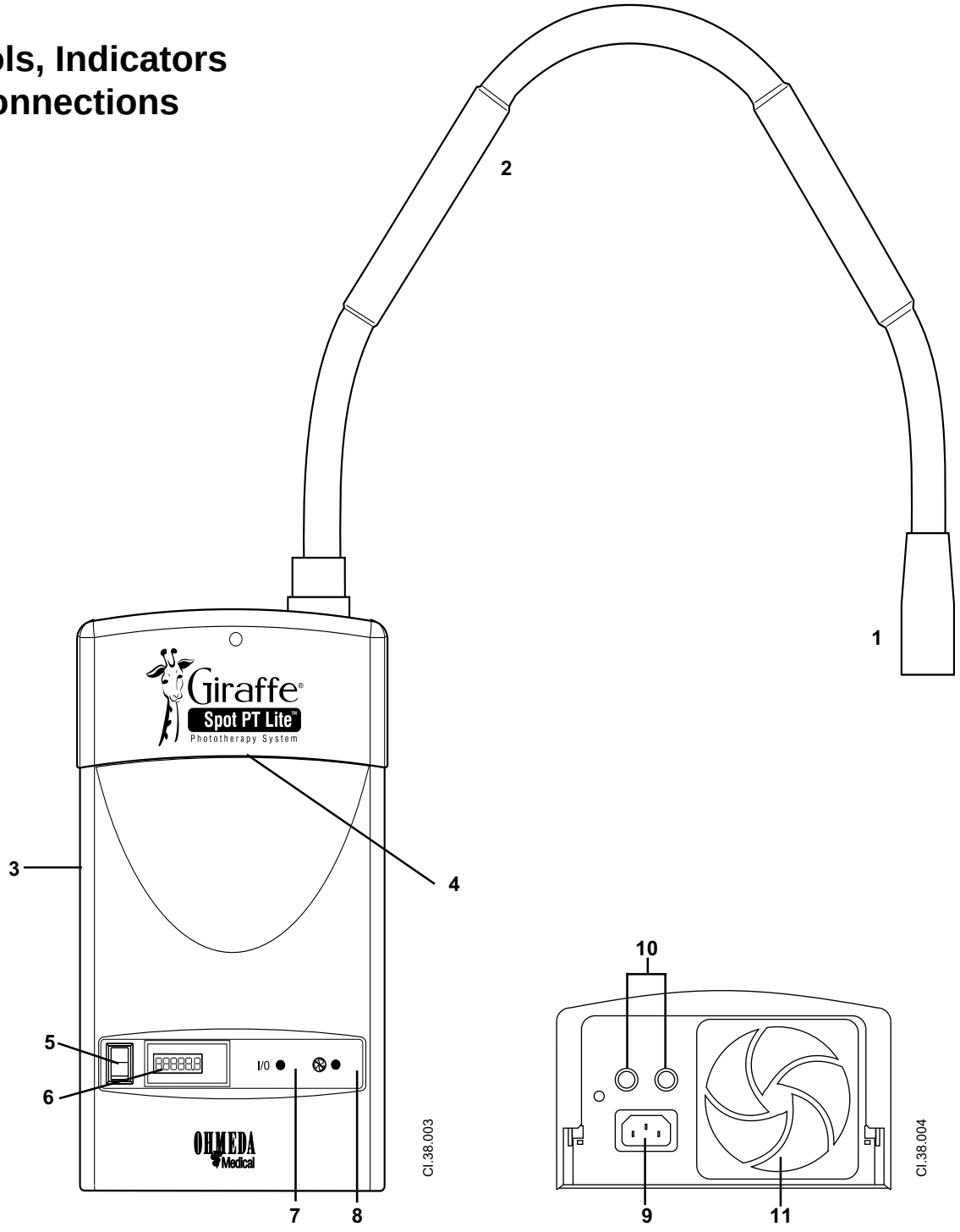
Located on the front of the unit, a rocker switch turns power on and off. Located near the power switch, a non-resettable hour meter shows how long the unit has been operated. Next to the hour meter, a green LED indicator lights when the unit is on, while a red LED indicator lights when the fan fails to operate correctly or the unit overheats.

Underneath, on the base of the unit are the IEC power receptacle, two resettable circuit breakers and the fan filter retainer. A mounting bracket on the back of the unit allows the unit to be positioned and secured in the dovetail slot of an accessory rail. Tightening two socket head mounting screws holds the unit in position.

The Gooseneck

The light intensity delivered to the patient varies directly with the distance of the lens head from the mattress. You change the intensity and spot size by manually adjusting this distance. The vinyl coated flexible gooseneck allows the lens to be positioned anywhere you wish; the gooseneck bends to a new position and then holds the lens in place. A flexible light pipe inside the gooseneck transmits the light from the lamp to the lens, where it can be directed at the patient.

Controls, Indicators and Connections



1. Lens head
2. Gooseneck
3. Light Source Unit
4. Air exhaust
5. Power switch
6. Hour meter
7. Power indicator
8. Air flow failure indicator
9. Power cord receptacle
10. Circuit breakers
11. Air intake/fan filter retainer

Set up and Checkout

CAUTION ⚠ To avoid damage to equipment, install bulb before powering unit.

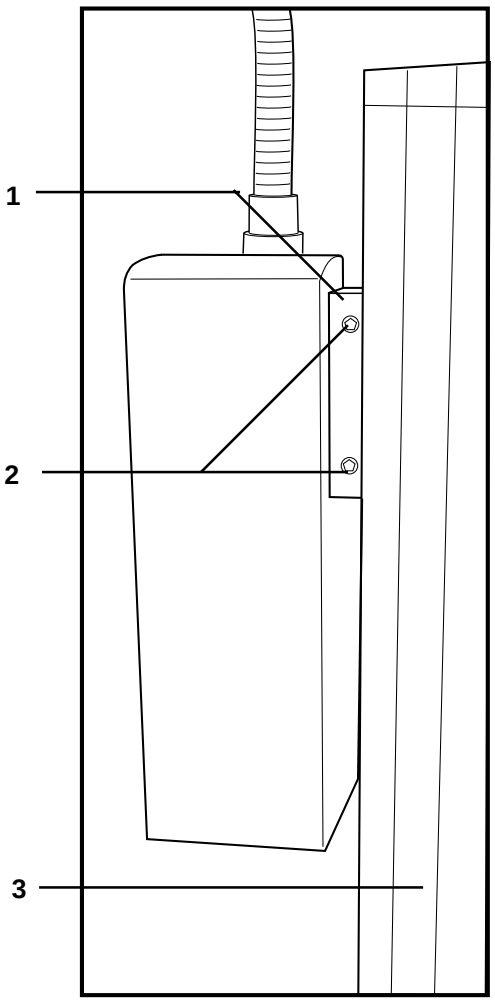
Mounting the unit

1. Using the hex key provided with the unit, loosen the two mounting screws on the side of the mounting bracket
2. Position the light source unit on the accessory dovetail rail.
3. Secure the unit in place by tightening the two mounting screws with the hex key.

Pre-use Check Out Procedure

1. Examine the power cord, gooseneck, and light source unit for obvious signs of damage.
2. Check that the light source unit is securely attached to the accessory dovetail rail.
3. Move the gooseneck back and forth and up and down and verify that it moves freely and stays in position.
4. Connect the power cord to an appropriate power source.
5. Select “|” on the power switch to turn the power on. The power LED indicator will light.

   Note: Immediately after turning the unit on, it takes several seconds for the light to be emitted from the lens head. If the light does not come on, switch off the unit, wait about ten seconds and switch it back on.
6. Position the lens head so that the spot is on the center of the bed.



1. Mounting bracket
2. Mounting screws
3. Dove tail rail

Notes

Operation

WARNINGS ⚠ Prolonged exposure to this light may harm the unprotected eyes of the infant or the operator. For safety, cover the infant's eyes and avoid looking directly at the light.

⚠ The bilirubin levels of infants receiving phototherapy should be regularly measured.

⚠ Porphyrins are the by-products of the photochemical break down of the bilirubin molecule. In some cases, exposure of porphyrins to phototherapy may result in a localized reddening of the infant's skin. Therefore, skin assessment is indicated with all types of phototherapy.

⚠ Light can adversely affect drugs and other infusion liquids. When using intravenous delivery systems during phototherapy, shield any tubing with aluminum foil.

⚠ When using the Giraffe Spot PT Lite™ Phototherapy System with a radiant warmer, make sure the lens head is not directly in the path of the radiant heat rays, since this will block heat to the infant and may damage the lens head.

⚠ The use of phototherapy equipment may raise the patient's temperature in a radiant warmer. The patient's temperature should always be monitored while using phototherapy equipment.

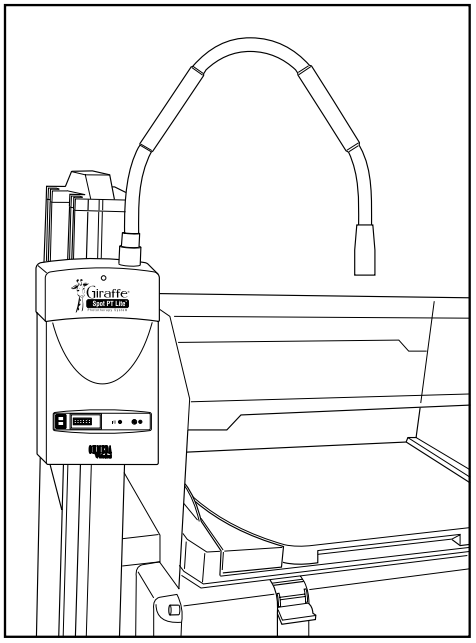
⚠ Phototherapy light is a form of radiant energy and can raise the temperature inside an incubator's infant compartment. The patient's temperature should always be monitored while using phototherapy equipment.

⚠ The radiant energy from phototherapy lights can increase an infant's insensible water loss. Take appropriate measures to maintain the patient's fluid balance while administering phototherapy.

⚠ When using phototherapy equipment with radiant warmers or incubators use the baby skin temperature mode (servo) unless manual mode is specifically prescribed. While both modes require patient monitoring, the manual mode requires constant attention. In the manual mode, you must take the responsibility for detecting changes in the environment (drafts, direct sunlight, phototherapy light usage, etc.) and the patient condition requiring heater or lamp adjustments in response to these changes. In the baby (servo) mode, the warmer or incubator automatically adjust heat output to maintain the desired skin temperature, reducing (but not eliminating) the need to monitor the patient and make adjustments to the equipment.

Operation

CAUTIONS ⚠ To avoid the device overheating, do not block any of the vents on the light source unit and do not operate the Giraffe Spot PT Lite Photo-therapy System if the cooling fan is not working.



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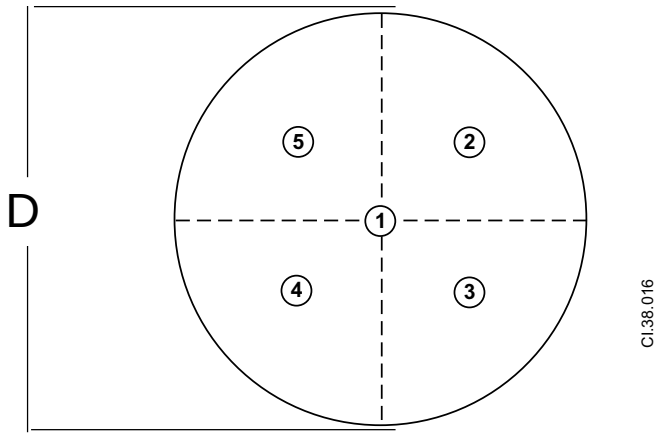
It is suggested that the Giraffe Spot PT Lite be checked with the BilliBlanket® Meter for desired therapeutic intensity before use with each patient.

1. Connect the power cord to an appropriate power source.
2. Select "|" on the power switch to turn the power on.

   Note: Immediately after turning the unit on, it takes several seconds for the light to be emitted from the lens head. If the light does not come on, switch off the unit, wait about 10 seconds and switch it back on.
3. Aim the light to the desired area.
4. Adjust to the desired spot size by raising or lowering the lens head.

Note: Since the Giraffe Spot PT Lite transmits very little heat energy, it should not damage the clear hood of an Ohmeda Medical incubator, even if it is in direct contact with the hood.

The table below lists nominal phototherapeutic irradiance intensity levels when the lens head is positioned at various heights over the bed surface. The light intensity listed is an average of readings taken at 5 points within the light spot: measured in the center of the spot and in the center of the 4 quadrants.



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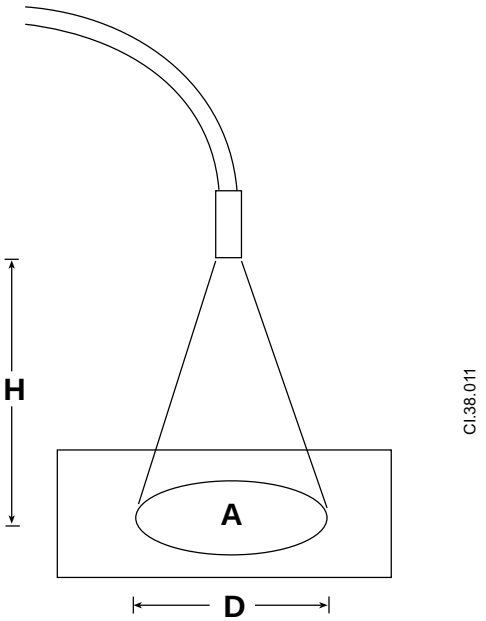

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Distance from lens head to bed surface H	Spot Diameter D	Surface Area A	Nominal irradiance level (μW/cm²/nm)
38 cm	20.0 cm	314.2 cm²	35.0
50 cm	25.9 cm	526.8 cm²	22.5
60 cm	31.5 cm	779.3 cm²	15.0
70 cm	36.5 cm	1046.3 cm²	10.5
80 cm	42.0 cm	1385.4 cm²	06.5

WARNING ⚠ **Do not operate the lamp at a distance less than 38 cm from the patient.**

Maintaining the unit

Repair Policy

Warranty repair and service must be performed by an Ohmeda Medical Service Representative or at the Ohmeda Medical Service and Distribution Center. To contact an Ohmeda Medical Service Representative, call the your Ohmeda Medical Service Office listed on the back cover.

Do not use malfunctioning equipment. Make all necessary repairs or have the equipment repaired by an Ohmeda Medical Service Representative. Parts listed in the service manual for this product may be repaired or replaced by a competent, trained person who has experience in repairing devices of this nature. After repair, test the equipment to ascertain that it complies with the published specifications.

CAUTION ⚠ Detailed information for more extensive repairs is included in the service manual solely for the convenience of users having proper knowledge, tools and test equipment, and for service representatives trained by Ohmeda Medical.

Maintenance schedule

The unit should be maintained in accordance with the procedures detailed in the Service Manual. Service maintenance must be performed by a technically competent individual.

Operator maintenance

This schedule lists the minimum maintenance frequencies. Always follow hospital and local regulations for required maintenance frequencies.

Weekly or After Each Patient

Clean the Giraffe Spot PT Lite Phototherapy System. Disinfect the unit if required or after use with infectious patients.

Quarterly

Inspect the air filter and clean or replace as required.

Note: This is the minimum inspection frequency. The filter must be cleaned or replaced whenever it appears dirty.

Maintaining the unit

Service maintenance

This schedule lists the minimum maintenance frequencies. Always follow hospital and local regulations for required maintenance frequencies.

As Required

It is recommended that the bulb be replaced after 2500 hours of use.

Annually

Perform the electrical safety procedure.

Check light intensity as described in the Service Section.

Cleaning

WARNING⚠ Never use flammable cleaning solutions to clean the Spot PT Lite.

Unplug the power cord and allow the unit to cool at least 10 minutes.

CAUTION ⚠ The lens should only be cleaned with 70% isopropyl alcohol and a lint-free soft cloth. Bleach must not be used to clean the lens or any surrounding area where the bleach may come into contact with the lens.

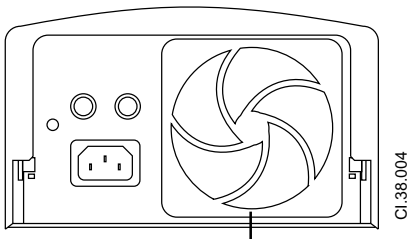
Clean the outside of the light source unit and gooseneck using a mild detergent solution. Aqueous solutions which are both hospital disinfectants and microbactericides may be used. Do not allow liquids to seep into the housing. Apply the cleaning solutions with a clean cloth or sponge. Always dry the parts with a clean damp soft cloth to avoid scratches and remove cleaner residue.

The following lists some cleaning solutions that may be used safely:

Generic Formulation	Maximum Concentration Level
Glutaraldehyde	2%
Hydrogen Peroxide	6%
Iodophor Solution	0.27%
Cavicide	100% spray

Cleaning or replacing the fan filter

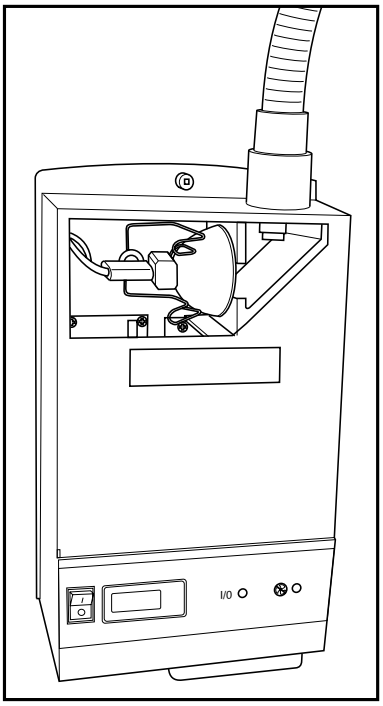
1. Disconnect power to the unit.
2. Unsnap the filter retainer from the bottom of the fan.
3. Inspect filter (6600-0236-850). Clean by rinsing in water or replace if necessary. The filter retainer is keyed, with one tab smaller than the other 3, to aid in correctly aligning the retainer.



Fan filter retainer

Replacing the bulb

It is recommended that the bulb be replaced after 2500 hours of use.



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WARNING⚠ **To ensure the proper operation and light intensity, replace the bulb only with an Ohmeda Medical bulb (6600-0235-850). Use of other bulbs will affect the performance of, and may result in damage to, the Giraffe Spot PT Lite Phototherapy System**.

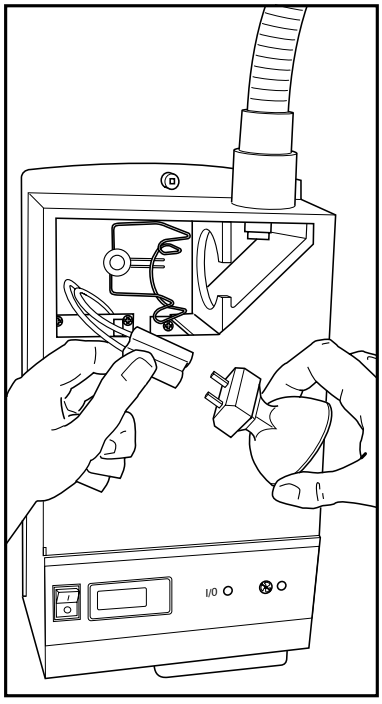
1. Turn off power and disconnect the power cord. Allow the lamp to cool at least 10 minutes.

WARNING⚠ **When the unit is connected to a power source, there is high voltage in the bulb assembly. Always disconnect the power cord when replacing the bulb.**

2. Using a 3mm hex key (6600-1246-400), remove the screw in the front of the unit, located in the center at the top of the cover. Remove the cover.

3. Grasp the bulb assembly by the electrical connector and pull it free from the wire retainer that holds it in place.

   Note: Do not touch the center glass bulb or mirror with your fingers. Contamination of the bulb may result in reduced lamp performance. If you touch the bulb during installation or if you see stains, clean the bulb with alcohol and dry with a clean, soft cloth.



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4. Disconnect the electrical connector and discard the bulb.

CAUTION ⚠ To avoid damage to equipment, install bulb before powering unit.

5. Connect the new bulb and slide it back into place. Orient the bulb so that “THIS SIDE UP” faces up. Be sure that the bulb seats completely in the groove in the metal housing.

6. Reinstall the cover and secure it with the screw. Never operate the unit with the cover open.

Accessories

Power cords

North America 6600-0775-603

IEC Plug 6600-0592-062

U.K. 6600-0574-603

C.E. 6600-0574-612

Australian 6600-0574-613

Italian 6600-0574-615

Bulb 6600-0235-850

Fan Filters (package of 12) 6600-0236-850

Hex Key (fits cover and mounting bracket) 6600-1246-400

Hex Key Holder 6600-1247-400

Gooseneck Repair Tape 6600-0258-850

Portable Roll Stand 6600-0894-216

Service

Functional Description

The Giraffe Spot Phototherapy Lite consists of three printed circuit assemblies (PCA), several peripheral components and an arc lamp. Power enters through an IEC320 receptacle line filter assembly. The line filter, along with a clamp-on ferrite bead that is located on the harness immediately after the line filter, provide filtering of both the phase and neutral lines for compliance with various agency approvals. The phase and neutral line then pass through circuit breakers for protection in the event of a device failure. After the circuit breaker, the phase and neutral are connected to the power switch. The output of the power switch is connected to the power supply PCA. The power supply is a universal input (90-264 VAC 50/60 Hz) switching power supply. The supply outputs +12VDC $\pm$ 5%. This voltage is not adjustable. The output of the power supply is applied to the remaining two PCAs. The remaining two PCAs are the ballast and indicator board. These two boards work interactively to properly light and monitor the operation of the bulb. A description of the ignition and operation of the lamp follows below.

The bulb in this product is an arc lamp. To light the lamp a high voltage must be applied across the anode and cathode of the lamp. Once the arc has occurred a low voltage but higher current will fully sustain the arc. The energy input into the lamp causes the chemicals inside the lamp to excite causing them to emit a high intensity light. The ballast converts the incoming 12 volts to a minimum 10.5 kilovolt pulses. The ballast s circuitry detects the presence of an arc and then outputs 52 volts $\pm$ 6 volts to the bulb. If no arc is detected, the circuitry shuts down until power is cycled.

The ballast takes in a remote on/off control signal that is sent from the indicator board and outputs a lamp status signal to the indicator board. The indicator board utilizes the on/off control line to turn off the lamp in the event of an over-temperature condition. A remote off-board thermostat is used to sense when an over-temperature condition occurs. The thermostat is normally closed and opens during an over-temperature condition. In normal operation, the thermostat is closed, the over-temperature LED is off and the ballast control signal is low (<0.5 volts), which turns the ballast on. In an over-temperature condition, the thermostat is open, and the over-temperature LED signal to the ballast control is high (>2.7 volts), which turns off the ballast.

The lamp status signal from the ballast is converted to a 12 volt referenced signal to control the counting of the hour meter. If a fault is detected by the ballast, or if the ballast is turned off due to over-temperature conditions, the lamp status signal will go low, causing the hour meter to stop counting. A flashing hour glass on the display of the hour meter indicates that the hour meter is counting. When in the stop counting mode, the elapsed hours will be displayed, but the flashing hour glass will not occur.

Due to the large current (approximately 5 amperes) required by the ballast, the ballast and the indicator board are connected in parallel to the power supply. The 12 volt supply for the hour meter and the two cooling fans is passed directly through the indicator board. In addition the indicator board contains a power indicator LED. When power is applied to the device regardless of the lamp status the power indicator will light, the fans will operate, and the hour meter display will light.

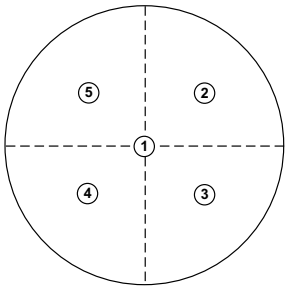
Service

Troubleshooting

Symptom	Possible Problem	Solution
Bulb does not light after switching unit off and back on. Over temp light doesn't light. Power light is lit.	Bulb is too hot for unit to switch on	Allow bulb to cool for about 10 seconds and reapply power. If left on fan will continue to operate and assist in cooling the bulb.
Bulb doesn't light Over temp light doesn't light. Power light doesn't light.	Bad connection Bad power switch Bad circuit breaker Bad line filter Bad power supply	Check line voltage circuitry to power supply. Trace line voltage from line filter through circuit breakers and power switch to power supply. If line voltage is present going into any of these devices but not present on the output of the device, then replace that device. If line voltage is present at power supply, verify power supply output. 12 volts should be present at J2 pins 1 referenced to pin 4. If there is no output, replace power supply.
Bulb doesn't light. Over temp light doesn't light. Power light is lit, or Arcing sound heard but bulb does not light	Bad bulb Bad ballast	Replace bulb. Replace ballast*.
Bulb doesn't light or goes every few minutes. Over temp light is lit or goes out when bulb lights Power light is lit.	Dirty filter Bad main or ballast fan Bad thermostat	Unit is in overheat mode. Check fan inlet filter. out Clean or replace filter if dirty. Verify that both fans are running Thermostat can be tested with an ohm meter. In normal operation the thermostat should be closed.
Bulb lights but Power light doesn't light. Over temp light doesn't light.	Bad indicator board	Replace indicator board.
Low light output	Lens blocked. Bad bulb. Bad ballast	Clean lens. Replace bulb. Replace ballast*.
Hour meter doesn't display hours. Power light is lit.	Bad hour meter	Verify that 12 volts is present on J3 pins 2 referenced to pin 4. If voltage is present replace hour meter.
Hour meter doesn't count hours when bulb is on. light is lit.	Bad indicator board Bad hour meter Bad ballast	Verify that $\geq$11 volts is present on J3 pins 1 referenced to 4. If voltage is present replace Power hour meter. If voltage is less than 11 volts verify that voltage at J1 pin 4 referenced to pin 5 is $\geq$1.421 volts. If voltage is present replace indicator board. If voltage is not present, replace ballast*.

*Due to the dangerous high voltage pulses and internal testing circuitry in the ballast, testing of the output is not recommended. Replacing the bulb with a *known good bulb* is recommended to determine if the problem is with the bulb or the ballast.

Service Procedures



Light Intensity Check

Turn on the light and wait a minute until the lamp stabilizes. Focus the light so that the spot diameter is 20.0 cm (about 38 cm from the bed surface). Using the BiliBlanket Meter, measure the light at the 5 points indicated on the diagram and average the 5 readings. It should be approximately 30-40 µW/cm²/nm for a new bulb. The absolute minimum for a new bulb is 25 µW/cm²/nm.

Note: Bulbs have a typical intensity degradation of approximately 10% over their lifespan.

Note: After performing any repair always perform the Light Intensity Check.

WARNINGS ⚠ **The design of this product incorporates ultraviolet and infrared filters. During servicing, never look directly at the lamp. Exposure for a duration of 10 minutes can cause eye damage. During troubleshooting proper eye protection should be worn.**

⚠ **The design of this product utilizes both covers to provide proper cooling of the lamp and circuitry. Operation of the unit for a duration of more than 10 minutes can cause overheating of the lamp and circuitry, which could damage the device.**

⚠ **Due to the high pressures inside the lamp improper cooling could cause the lamp to shatter. Both covers should be installed prior to applying power. During troubleshooting proper eye protection should be worn.**

Opening the Light Source Enclosure (See Figure 5-1)

1. Disconnect the unit power cord from the wall outlet or equipment that it is plugged into.
2. Using the 3mm hex key provided with the unit, remove the screw in the front of the unit, located in the center at the top of the front cover. Remove cover.
3. Use a 7mm nutdriver or socket to loosen the nut that secures the sheet metal EMI shield. Slide the EMI shield up and out of the unit.

Disassembling the gooseneck (See Figure 5-2)

1. Remove the front cover and EMI shield.
2. To remove the gooseneck, remove the retaining ring and telflon washer located inside the bulb bracket and teflon washer on the top unit, then remove the gooseneck from unit.
3. To remove the lens head from the gooseneck, remove the retaining ring just inside the lens housing and slide the housing back up the gooseneck, so that you can see the entire lens retainer, which is the plastic sleeve inside the lens housing.
4. Spread the back of the lens retainer out to release it from the groove in the end of the gooseneck and remove it.
5. To remove the lens, spread the front of the lens retainer and carefully remove the lens.

   Note: When replacing the convex lens, it is important that the arrow on the side of the lens face towards the main unit. Care should be taken when handling the lens to keep finger oils and fingerprints off the lens surfaces. Lens may be cleaned with 70% isopropyl alcohol and a lint-free soft cloth.

Replacing the Bulb Bracket and Thermostat (See Figure 5-3)

1. Remove the front cover, EMI shield, gooseneck and bulb.
2. Use a 7mm wrench to remove the 3 screws that secure the bracket.
3. Pop the seal out of its groove. To remove the mirror, use a 2mm hex key to remove the 2 screws that hold it in position.
4. To remove the thermostat, disconnect its connector from J4 on the LED board.
5. Cut the 2 cable ties that secure the thermostat to the cable tie holder and remove the thermostat. If you are replacing the thermostat, remember to order 2 new cable ties to hold it in position.
6. Remove the wire bulb retainer by removing the nut that secures it on the mounting stud. When replacing or reinstalling the bulb retainer, position it from 0.45 to 0.5 inches from the bulb bracket to maintain adequate spring load on the bulb.

Replacing the Ballast (See Figure 5-3)

WARNING ⚠ Shock hazard. The ballast emits high voltage pulses. Disconnect the unit from power source and use extreme care when servicing it. It is not recommended to measure the voltages at the lamp: this may damage measuring equipment.

1. Disconnect all the wire harnesses coming from the ballast.
2. Disconnect the bulb connector from the bulb.
3. Cut the cable tie strain relief. Order a new cable tie (6600-0384-400) when you replace the ballast.
4. Using a 2mm hex key, remove the 4 M3 screws that secure the ballast and remove the ballast.

Removing other components (See Figure 5-5 and 5-6)

To replace the components located in the lower portion of the unit it is necessary to first remove the large U shaped bracket at the bottom of the unit. To remove the bracket use a 7mm wrench to remove the 2 nuts that hold the bracket to the back cover. It may be necessary to carefully move or remove ballast fan bracket to access the other components.

Power Supply- To remove the power supply, first disconnect its wire harness, then use a Phillips head screwdriver to remove the 4 screws that secure it to the back cover.

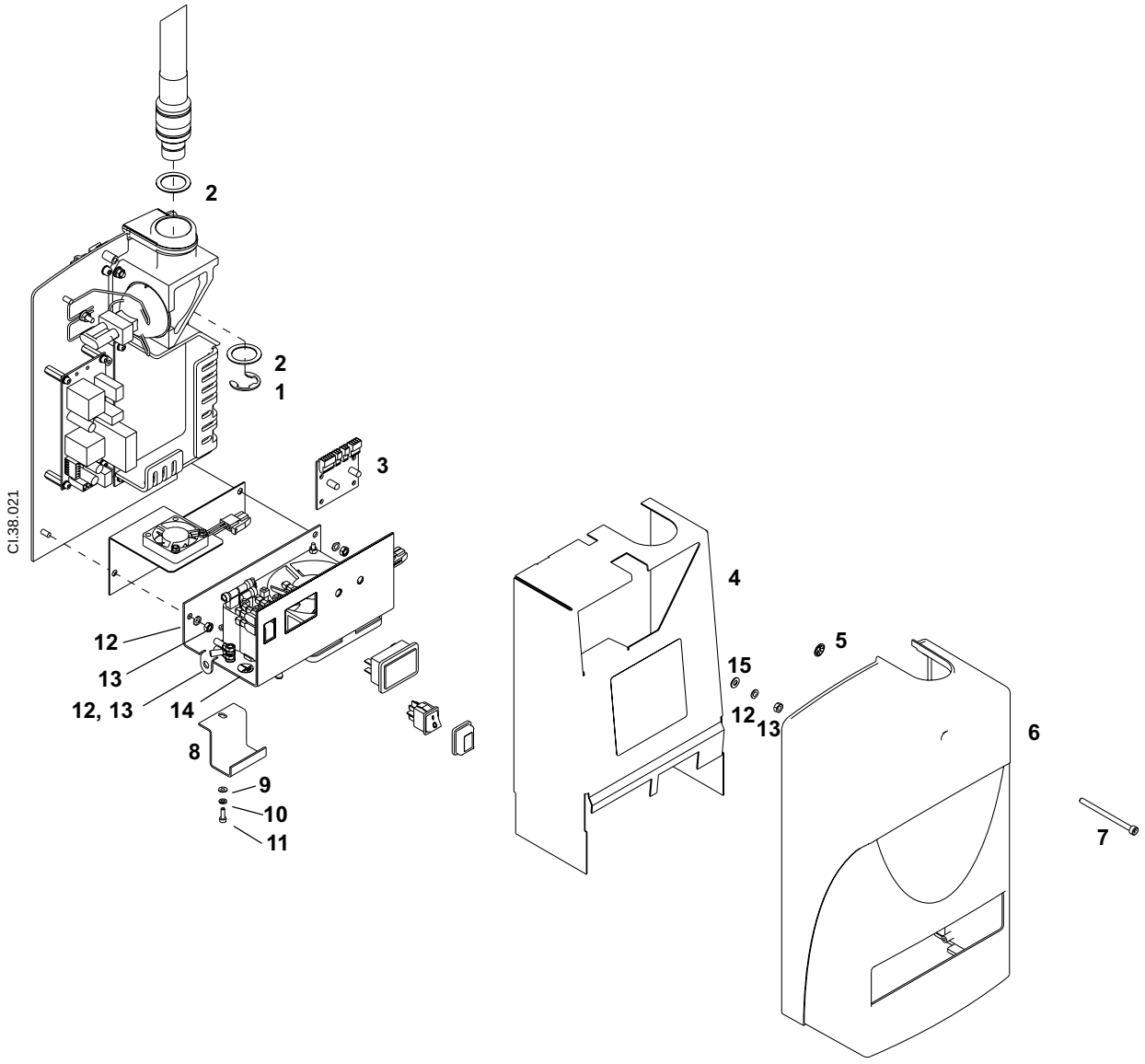
Main Fan-To remove, first remove the fan guard and filter from the bottom of the unit, then disconnect the fan from J2 on the LED board. Use a Phillips head to turn the 4 screws and a 5.5mm wrench to hold the 4 nuts that secure it to the U bracket.

Indicator Board- To remove the LED Board, first disconnect the boards wire harnesses, then pop the board off its standoffs.

Circuit Breakers- to remove the circuit breakers disconnect their wire harnesses then unscrew the knurled nut that holds them to the U bracket.

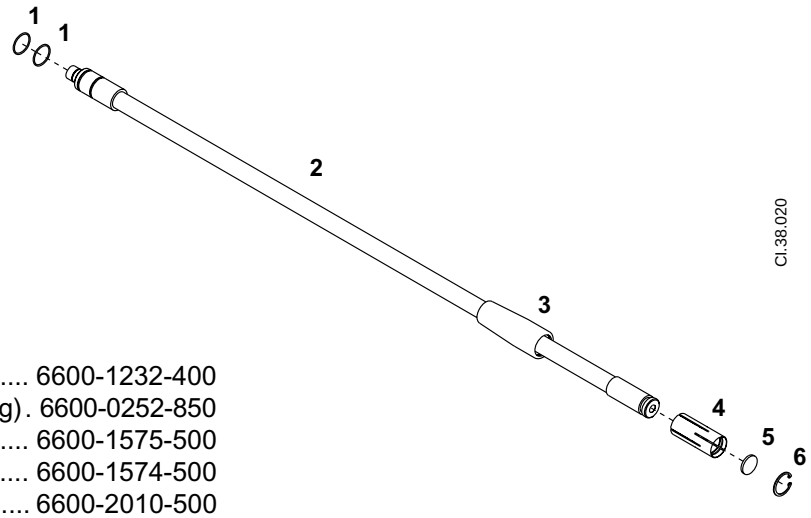
Power Switch, Line Filter and Hour Meter- To remove any of these components simply disconnect their wire harnesses and pop them out of their cutout in the U bracket. The line filter is secured by two screws. When removing the power switch, you must also remove its clear plastic drip cover. When replacing the hour meter, you must also replace its label on the front cover.

Illustrated Parts



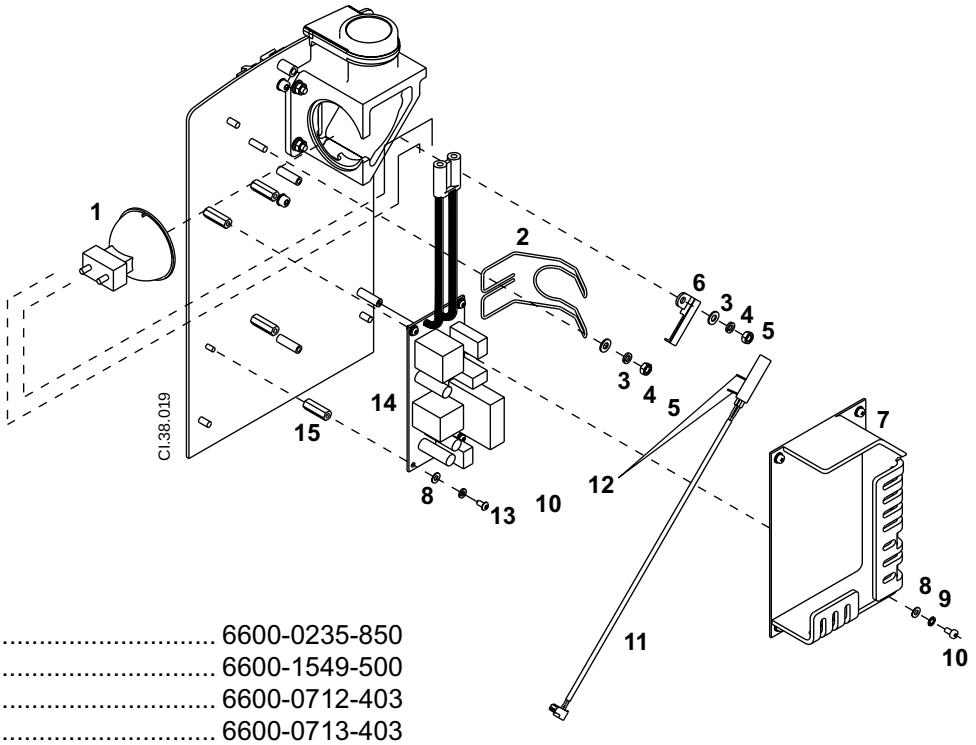
1. Light pipe retaining ring 6600-1257-400
2. Teflon washer 6600-1256-400
3. Indicator board 6600-0251-850
4. EMI housing cover 6600-0249-850
5. Push nut, M4 6600-0881-400
6. Cover (includes items 5 & 7) 6600-0250-850
7. Screw, M4 x 60L 6600-0707-450
8. Power cord retainer 6600-1701-500
9. Washer, M3 6600-0712-402
10. Split ring washer, M3 6600-0713-402
11. Screw, Skt. Hd. M3 x 10 6600-0707-403
12. Star washer, M4 6600-0713-432
13. Nut, M4 6600-0711-407
14. Label, ground 0205-4737-300
15. Washer, M4 6600-0712-403

Figure 5-1
Outside covers



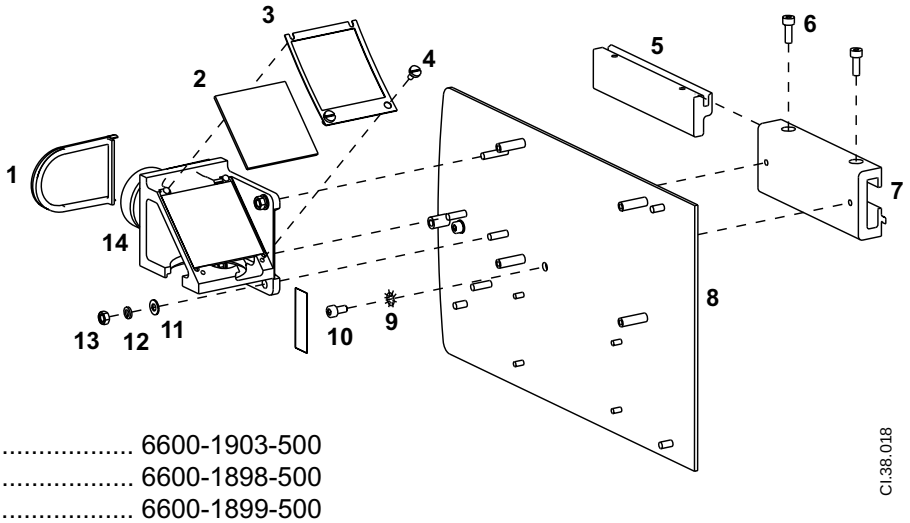
1. O-ring 6600-1232-400
2. Light pipe (include 2 pcs of item 1 O-ring) . 6600-0252-850
3. Lens cover 6600-1575-500
4. Lens retainer 6600-1574-500
5. Lens 6600-2010-500
6. Retainer ring 6600-1225-400

Figure 5-2
Goosneck



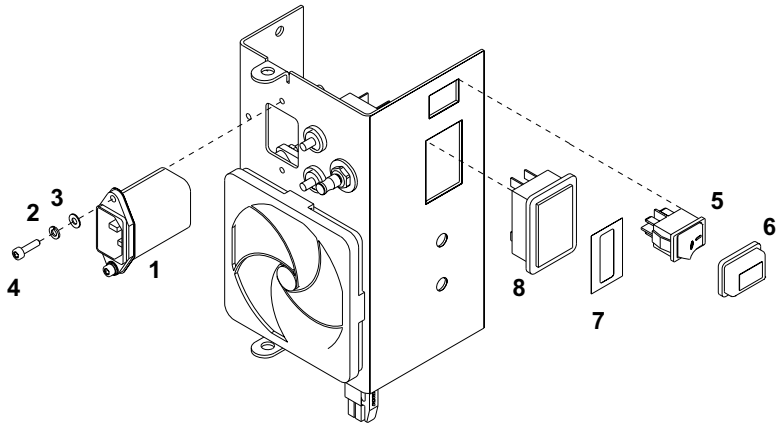
1. Bulb 6600-0235-850
2. Bulb retainer 6600-1549-500
3. Washer, M4 6600-0712-403
4. Split ring washer, M4 6600-0713-403
5. Nut, M4 6600-0711-407
6. Cable tie holder 6600-1230-400
7. Power supply 6600-0840-600
8. Washer, M3 6600-0712-402
9. Washer, lock M3 int. tooth 6600-0713-431
10. Screw, M3 x 10 Skt HD 6600-0707-403
11. Thermostat assembly 6600-1067-700
12. Cable tie 6600-0384-400
13. Star washer, M3 6600-0713-431
14. Ballast assembly 6600-0248-850
15. Standoff, M3 x 19L 6600-1224-400

Figure 5-3
Bulb, power supply, thermostat and ballast



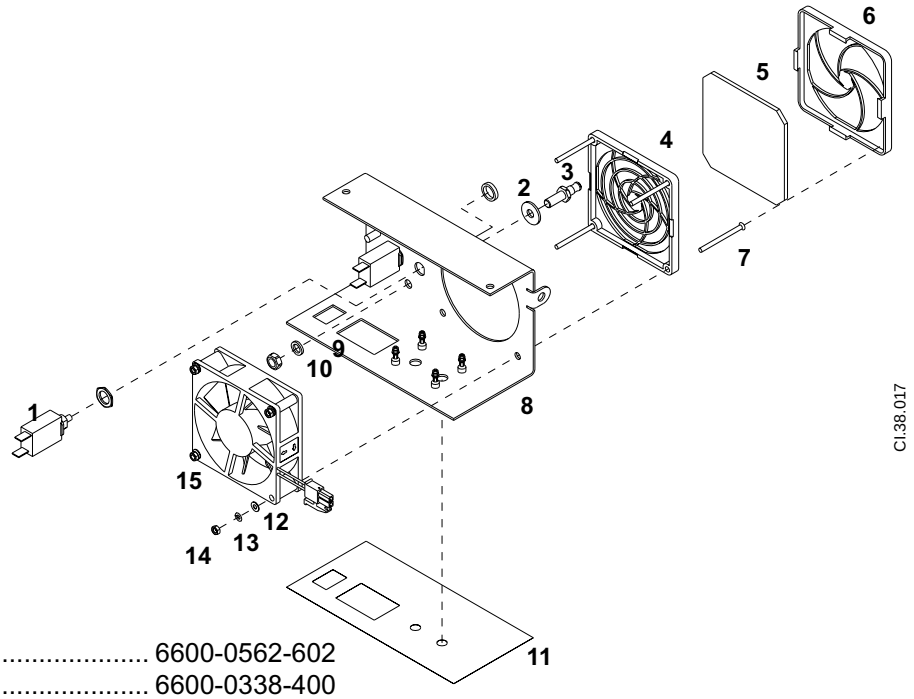
1. Top cover seal 6600-1903-500
2. Mirror 6600-1898-500
3. Mirror retainer frame 6600-1899-500
4. Screw, shoulder M3 x 2L 6600-0715-415
5. Mounting bracket lock 6600-1554-500
6. Screw, locking M4 x 12L 6600-0853-400
7. Mounting bracket housing 6600-1553-500
8. Mounting plate 6600-1547-500
9. Star washer, M4 int. tooth 6600-0713-432
10. Screw, M4 Skt. Hd. 6600-0707-408
11. Washer, M4 6600-0712-403
12. Split ring washer 6600-0713-403
13. Nut, M4 6600-0711-407
14. Bulb bracket 6600-1548-500

Figure 5-4
Mirror and mounting bracket



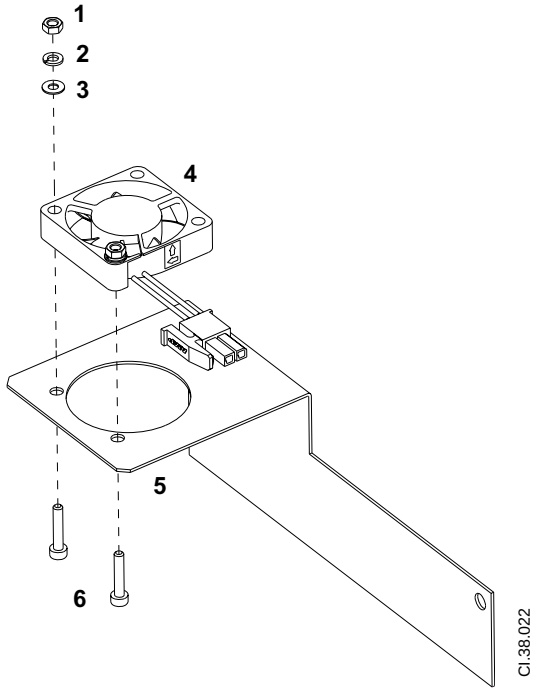
1. Line filter 6600-1319-600
2. Washer, M3 6600-0712-402
3. Split ring washer, M3 6600-0713-402
4. Screw, M3 x 12L Skt HD 6600-0707-404
5. Rocker switch 6600-0582-600
6. Switch cover 6600-0571-400
7. On/Off label 6600-2454-100
8. Hour meter 6600-1264-600

Figure 5-5
Line filter, switch and hour meter



1. Circuit breaker 6600-0562-602
2. Washer, color code 6600-0338-400
3. Ground plug 6600-0337-400
4. Fan guard 6600-1910-500
5. Air filters (12 pcs.) 6600-0236-850
6. Fan filter retainer 6600-1911-500
7. Screw, M3 x 40L 6600-0710-428
8. Bottom U bracket 6600-1546-500
9. Split ring washer, M6 6600-0339-400
10. Nut, M6 6600-0340-400
11. Label set 6600-2454-100
12. Washer, M3 6600-0712-402
13. Split ring washer, M3 6600-0713-402
14. Nut, M3 6600-0711-403
15. Main fan assembly 6600-0601-700

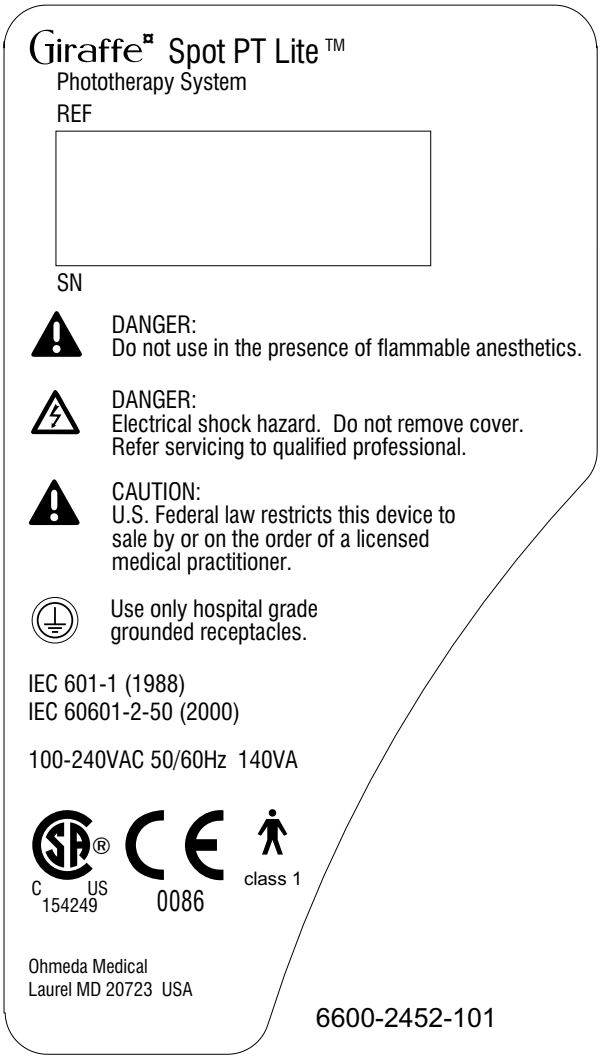
Figure 5-6
Main fan assembly



1. Nut, M3 6600-0711-403
2. Split ring washer 6600-0713-402
3. Washer, M3 6600-0712-402
4. Ballast fan 6600-1522-700
5. Fan mounting bracket 6600-1954-500
6. Screw, M3 x 16 Skt HD 6600-0707-405

Figure 5-7
Ballast fan and mounting bracket

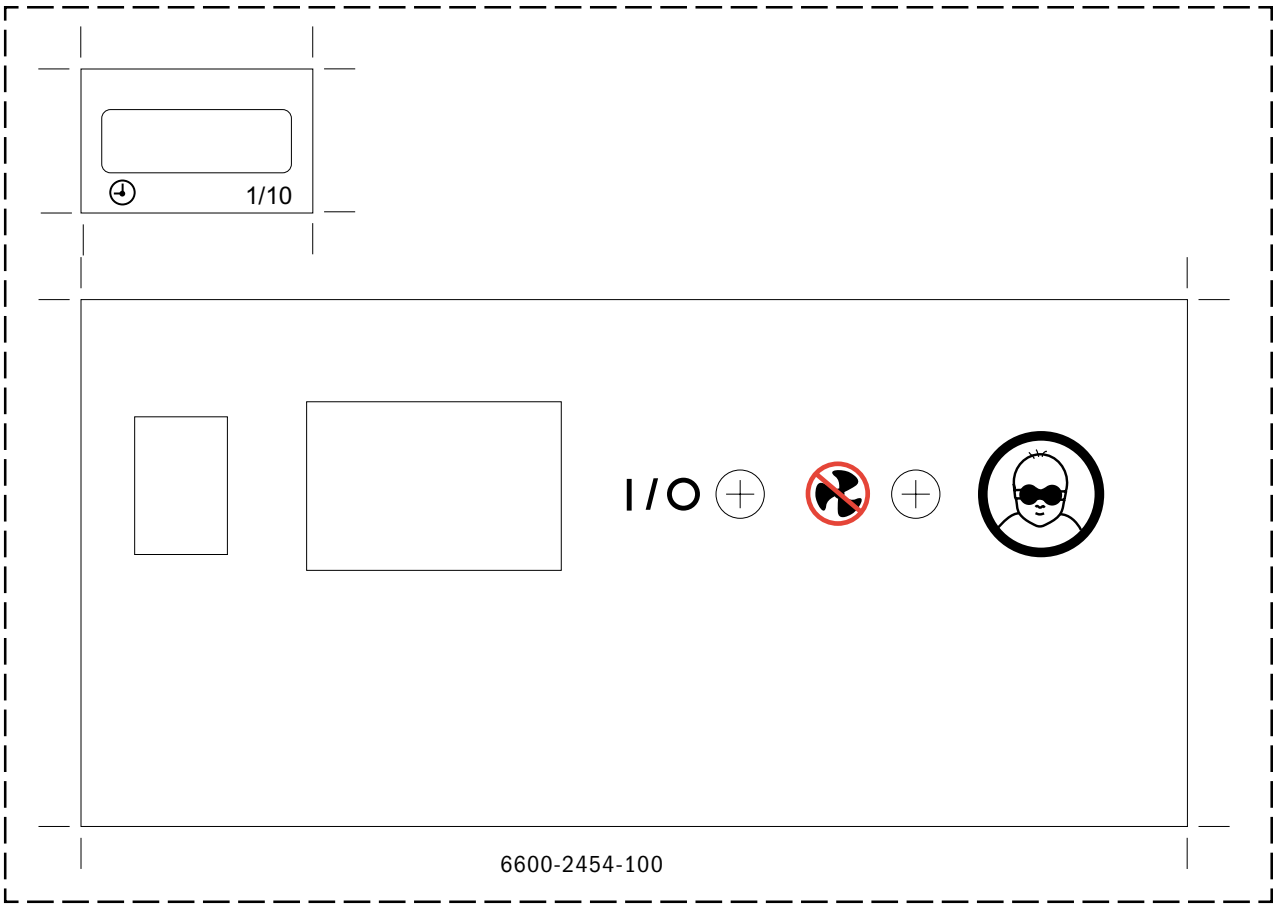
Labels



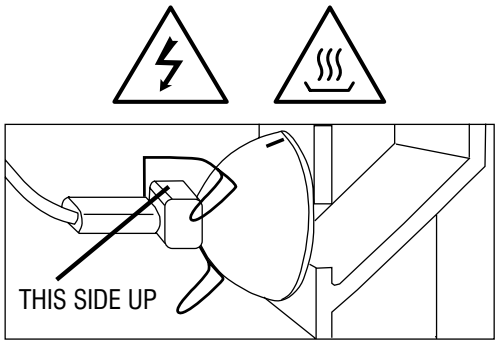
6600-2452-101

Serial number overlay
6600-2516-100

English	6600-2452-101
French	6600-2452-102
Spanish	6600-2452-103
German	6600-2452-104
Italian	6600-2452-105
Swedish	6600-2452-106
Japanese	6600-2452-107
Russian	6600-2452-108
Greek	6600-2452-109
Dutch	6600-2452-110
Portuguese	6600-2452-111



6600-2454-100



IMPORTANT: Do not touch bulb or mirror with fingers. Position bulb so that “THIS SIDE UP” faces up and the black line is centered at the top of the circular cutout in the metal housing . Be sure that the bulb seats completely in the groove in the metal housing. SEE OPERATION AND MAINTENANCE MANUAL FOR COMPLETE INSTRUCTIONS. Use only Ohmeda Medical replacement bulb part number 6600-0235-850.

6600-2450-100

Wiring Diagram

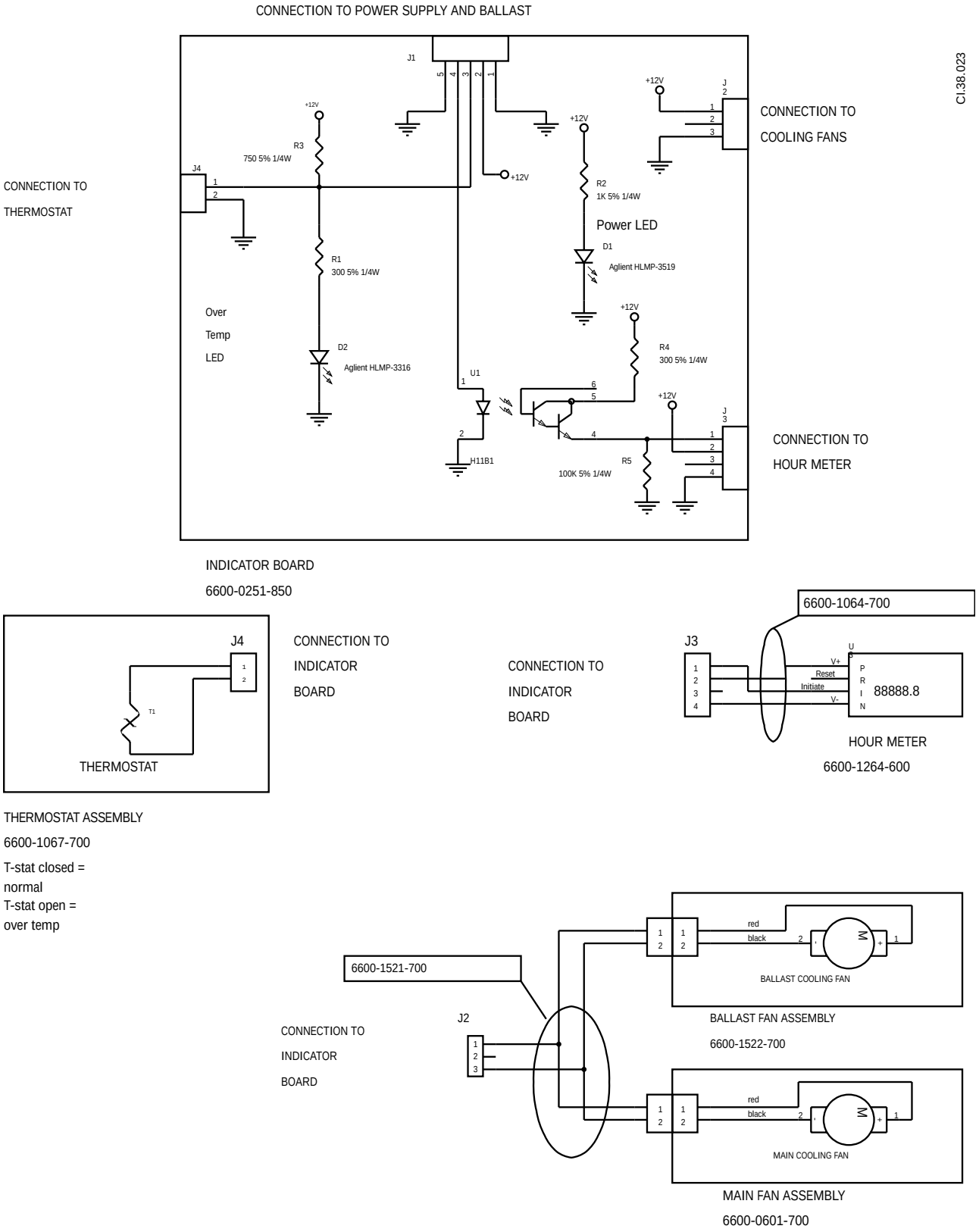


Figure 5-8
Wiring Diagram- A

CI.38.024

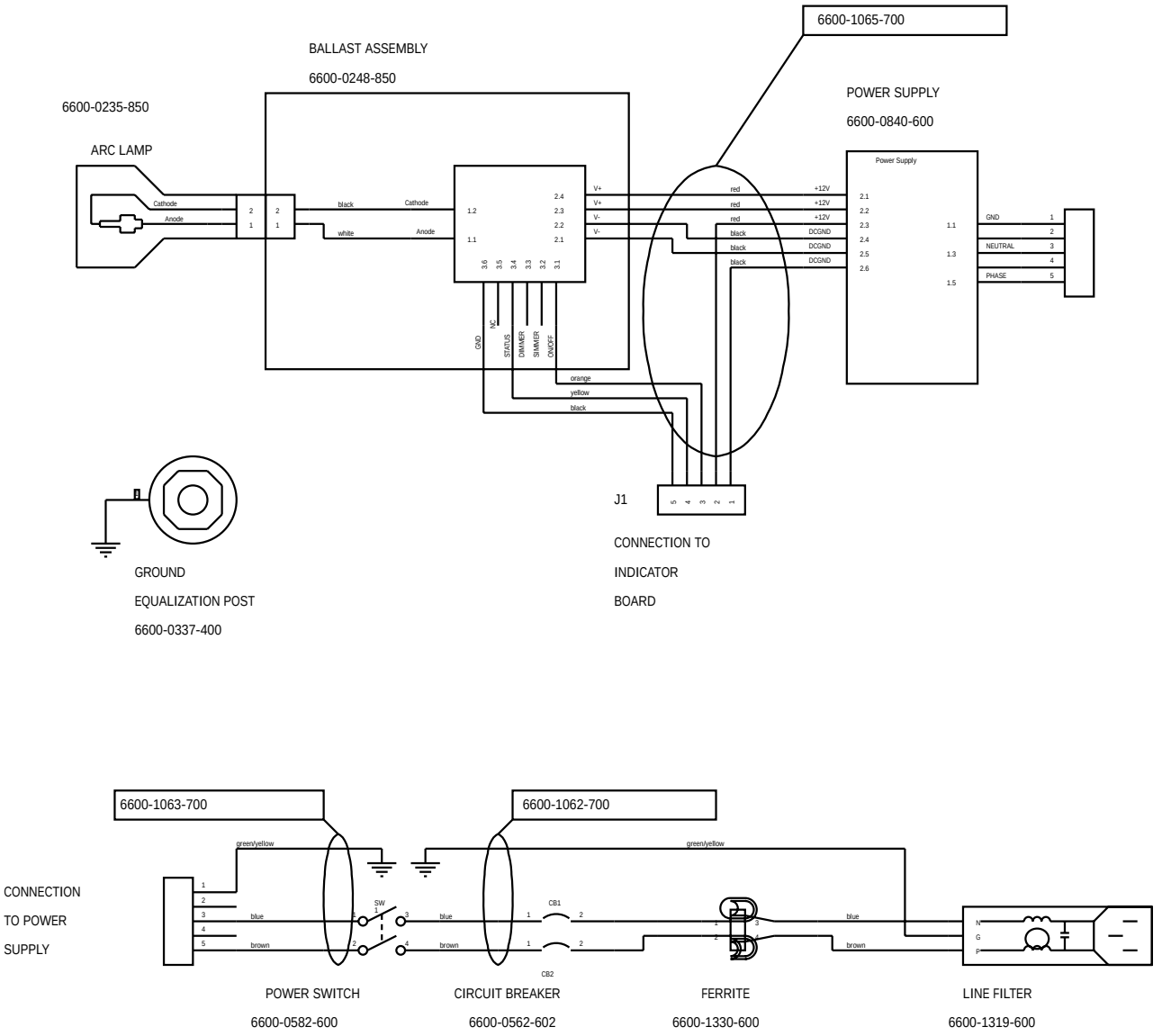


Figure 5-9
Wiring Diagram- B

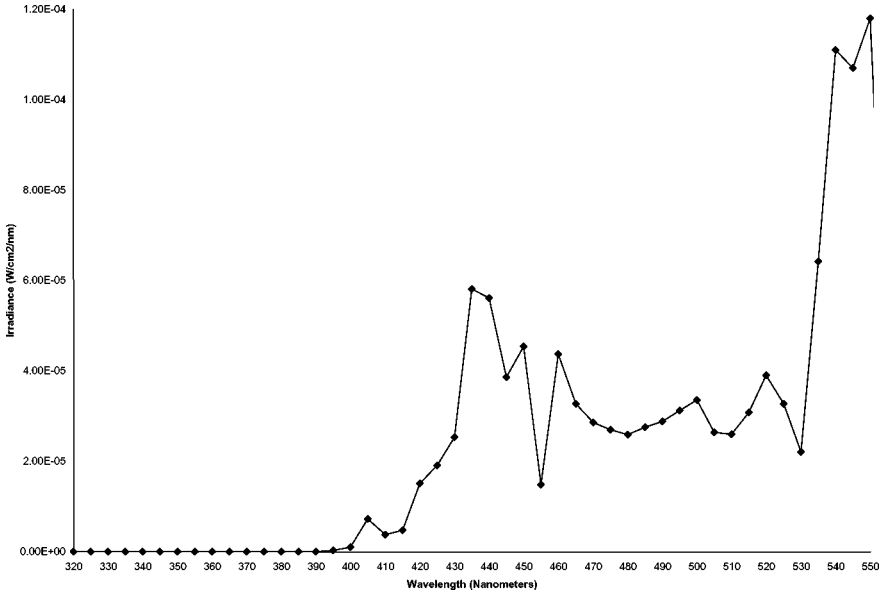
Appendix

Specifications

Standards	IEC 601-1, 1991, IEC 601-1-2,1993, IEC 601-2-50, 2000	
Electrical		
	1.2 A @ 100 V ~, 50/60 Hz	
	1.0 A @ 115 V ~, 50/60 Hz	
	0.68 A @ 220 V ~, 50/60 Hz	
	0.65 A @ 230 V ~, 50/60 Hz	
	0.63 A @ 240 V ~, 50/60 Hz	
Environmental		
	Operating Environment	
	Temperature	20 to 30°C
	Humidity	10 to 95% non-condensing relative humidity
	Air Velocity	Up to 0.3 m/sec
	Storage Conditions	
	Temperature	0 to 60°C
	Humidity	0 to 95% non-condensing relative humidity
	Pressure	50 to 106 kPa
Performance		
	Intensity	Approximately 30 - 40 µW/cm^2/nm (at a distance from the baby of 38 cm with a spot diameter of 20 cm)
	Nominal bulb life	2500 hours
	Noise level	< 60 dBA (measured 90 cm from the unit)
	Mode of operation	Continuous
Physical Dimensions		
	Width 20 cm x Height 30 cm x Depth 13 cm	
	Weight 4.2 kg	

Appendix

Total Spectral Irradiance of the Giraffe Spot PT Lite Phototherapy System



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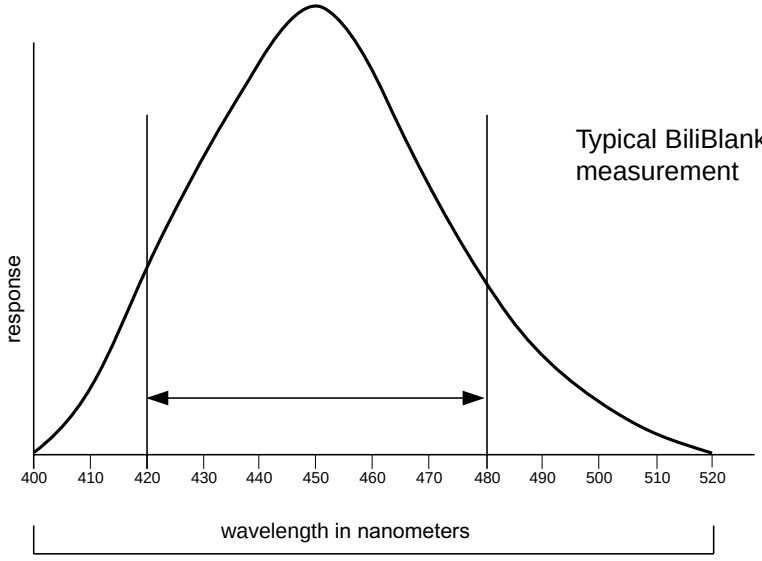
Typical BiliBlanket Light Meter Responses for intensity measurement



CI.38.010

Warranty

This Product is sold by Ohmeda Medical under the warranties set forth in the following paragraphs. Such warranties are extended only with respect to the purchase of this Product directly from Ohmeda Medical or Ohmeda Medical's Authorized Dealers as new merchandise and are extended to the Buyer thereof, other than for the purpose of resale.

For a period of twelve (12) months from the date of original delivery to Buyer or to Buyer's order, but in no event for a period of more than two years from the date of original delivery by Ohmeda Medical to an Ohmeda Medical Authorized Dealer, this Product, other than its expendable parts, is warranted to be free from functional defects in materials and workmanship and to conform to the description of the Product contained in this operation manual and accompanying labels and/or inserts, provided that the same is properly operated under the conditions of normal use, that regular periodic maintenance and service is performed and that replacements and repairs are made in accordance with the instructions provided. This same warranty is made for a period of thirty (30) days with respect to expendable parts. The foregoing warranties shall not apply if the Product has been repaired other than by Ohmeda Medical or in accordance with written instructions provided by Ohmeda Medical, or altered by anyone other than Ohmeda Medical, or if the Product has been subject to abuse, misuse, negligence, or accident.

Ohmeda Medical's sole and exclusive obligation and Buyer's sole and exclusive remedy under the above warranties is limited to repairing or replacing, free of charge, at Ohmeda Medical's option, a Product, which is telephonically reported to the nearest Ohmeda Medical Field Service Support Center and which, if so advised by Ohmeda Medical, is thereafter returned with a statement of the observed deficiency, not later than seven (7) days after the expiration date of the applicable warranty, to the Ohmeda Medical Service and Distribution Center during normal business hours, transportation charges prepaid, and which, upon Ohmeda Medical's examination, is found not to conform with above warranties. Ohmeda Medical *shall not be otherwise liable for any damages including but not limited to incidental damages, consequential damages, or special damages.*

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